

IMC-21GA Series

Industrial Gigabit Ethernet-to-fiber media converters



Features and Benefits

- Supports 1000Base-SX/LX with SC connector or SFP slot
- Link Fault Pass-Through (LFPT)
- 10K jumbo frame
- Redundant power inputs
- -40 to 75°C operating temperature range (-T models)
- Supports Energy-Efficient Ethernet (IEEE 802.3az)

Certifications



Introduction

The IMC-21GA industrial Gigabit media converters are designed to provide reliable and stable 10/100/1000BaseT(X)-to-100/1000Base-SX/LX or selected 100/1000Base SFP module media conversion. The IMC-21GA supports IEEE 802.3az (Energy-Efficient Ethernet) and 10K jumbo frames, allowing it to save power and enhance transmission performance. All IMC-21GA models are subjected to a 100% burn-in test, and they support a standard operating temperature range of 0 to 60°C and an extended operating temperature range of -40 to 75°C.

Specifications

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	1
100/1000BaseSFP Ports	IMC-21GA models: 1
1000BaseSX Ports (multi-mode SC connector)	IMC-21GA-SX-SC models: 1
1000BaseLX Ports (single-mode SC connector)	IMC-21GA-LX-SC models: 1
Magnetic Isolation Protection	1.5 kV (built-in)

Optical Fiber

	1000BaseSX	1000BaseLX
Wavelength	850 nm	1310 nm
Tx Output (dBm)	-3 to -10	-3 to -9
Rx Sensitivity (dBm)	-3 to -20	-3 to -21
Link Budget (dBm)	10	12
Typical Distance	500 m	10 km

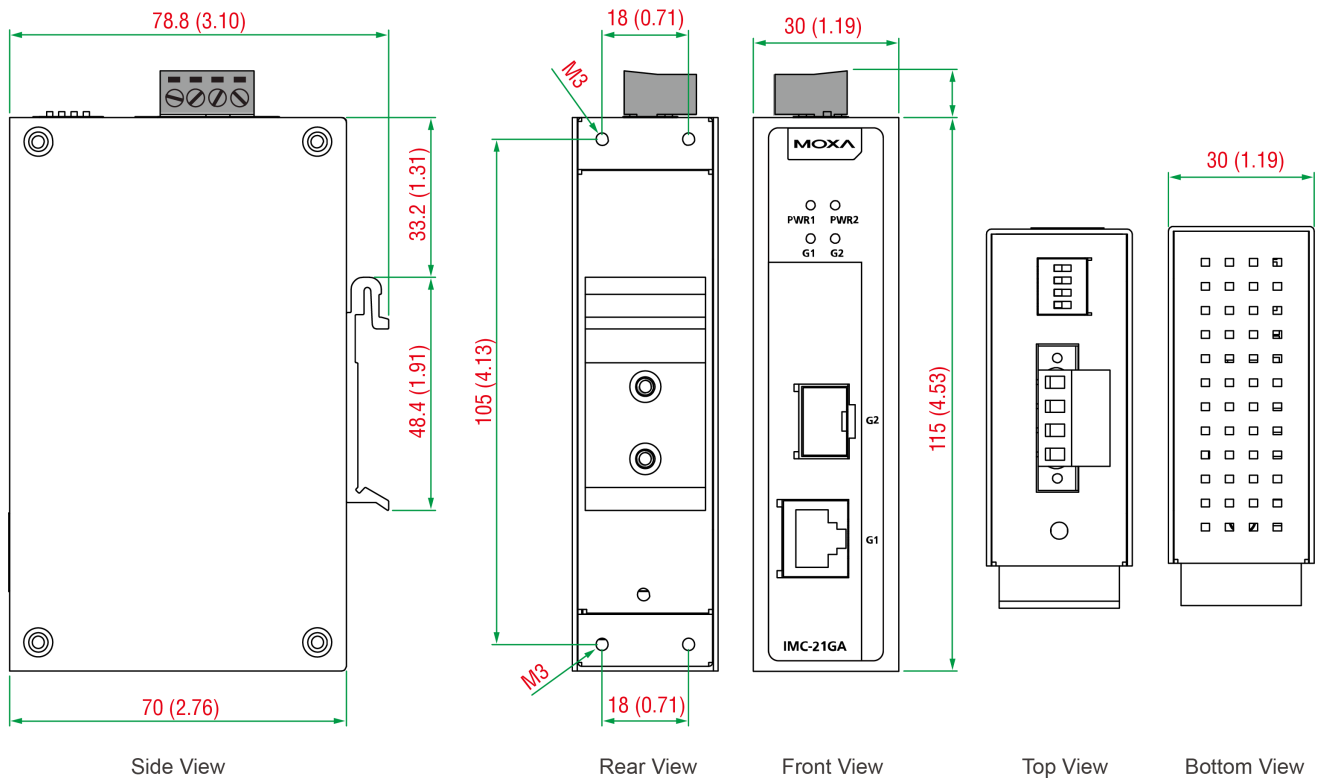
Power Parameters

Input Current	285 mA @ 12 VDC
Input Voltage	12 to 48 VDC
Overload Current Protection	Supported

Power Connector	Terminal block
Power Consumption	285 mA @ 12 VDC
Physical Characteristics	
Housing	Metal
Dimensions	30 x 125 x 79 mm (1.19 x 4.92 x 3.11 in)
Weight	170 g (0.37 lb)
Installation	DIN-rail mounting
Environmental Limits	
Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 1 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs
Environmental Testing	IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3
Safety	EN 60950-1, UL 60950-1
Vibration	IEC 60068-2-6
MTBF	
Time	2,762,058 hrs
Standards	MIL-HDBK-217F
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x IMC-21GA Series converter
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Operating Temp.	Fiber Module Type
IMC-21GA	-10 to 60°C	SFP
IMC-21GA-T	-40 to 75°C	SFP
IMC-21GA-SX-SC	-10 to 60°C	Multi-mode SC
IMC-21GA-SX-SC-T	-40 to 75°C	Multi-mode SC
IMC-21GA-LX-SC	-10 to 60°C	Single-mode SC
IMC-21GA-LX-SC-T	-40 to 75°C	Single-mode SC

Accessories (sold separately)

SFP Modules

SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature

	<p>Applicable Models: IMC-21GA-T</p>
SFP-1G20ALC	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1G20ALC-T	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1G20BLC	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1G20BLC-T	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1G40ALC	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1G40ALC-T	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1G40BLC	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1G40BLC-T	<p>WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1GLHLC-T	<p>SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1GLHXLC	<p>SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1GLHLC	<p>SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>
SFP-1GLXLC-T	<p>SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature</p> <p>Applicable Models: IMC-21GA-T</p>
SFP-1GZXLC	<p>SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature</p> <p>Applicable Models: IMC-21GA</p>

SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLSXLC	SFP module with 1 1000BaseLSXC port with LC connector for 500 m transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSXC port with LC connector for 500 m transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GLXLC	SFP module with 1 1000BaseLXC port with LC connector for 10 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLHXLC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GZXLC-T	SFP module with 1 1000BaseZXC port with LC connector for 80 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode with LC connector for 4 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T

Wall-Mounting Kits

WK-30	Wall-mounting kit, 2 plates, 4 screws, 40 x 30 x 1 mm
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Power Supplies

DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
DR-4524	45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature

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